Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended)

A method for writing a control ~~flag,~~ flag included in a processor control register of a processor by a guest virtual machine, the method comprising:

determining whether the control flag is owned by ~~a guest~~ the guest virtual machine;

writing the control flag to ~~a processor~~ the processor control register if the control flag is owned by the guest virtual machine; and

writing the control flag to a shadow location in a guest virtual machine context in a memory coupled to the processor if the control flag is not owned by the guest virtual machine.

2.   (Original)

The method of claim 1, wherein determining whether the control flag is owned by the guest virtual machine further comprises testing a first flag in a mask word.

3.   (Original)

The method of claim 1, further comprising:

determining whether the control flag is maintained in the shadow location;

writing the control flag to the shadow location if the control flag is not owned by the guest virtual machine and is maintained in the shadow location; and

exiting to a virtual machine monitor if the control flag is not owned by the guest virtual machine and is not maintained in the shadow location.

4. (Original)

The method of claim 3, wherein determining whether the control flag is maintained in a shadow location is performed only if the control flag is not owned by the guest virtual machine.

5. (Currently Amended)

The method of claim 3, wherein determining whether the control flag is maintained in a shadow location further comprises testing a ~~second~~ flag.

6. (Currently Amended)

A method for reading a control ~~flag,~~ flag included in a processor control register of a processor by a guest virtual machine hosted by the processor, the method comprising:

determining whether the control flag is maintained in a shadow ~~location;~~ location in a guest virtual machine context in a memory coupled to the processor;

reading the control flag from the shadow location if the control flag is maintained in the shadow location; and

reading the control flag from a processor control register of the processor if the control flag is not maintained in the shadow location.

7.   (Original)

The method of claim 6, wherein determining whether the control flag is maintained in a shadow location further comprises determining whether the control flag is owned by the guest virtual machine.

8.   (Original)

The method of claim 6, wherein determining whether the control flag is maintained in a shadow location further comprises testing a flag in a mask word.

9.   (Original)

A processor comprising:

   a processor control register to include a control flag;

   a pointer to a guest virtual machine context;

   a first mask word in the guest virtual machine context, the first mask word to include a first flag to indicate whether the control flag is owned by a guest virtual machine associated with the guest virtual machine context;

   a shadow location in the guest virtual machine context;

   an execution control unit to cause a write of the control flag by the guest virtual machine to be redirected to the shadow location if the control flag is not owned by the guest virtual machine.

10.   (Original)

The processor of claim 9, further comprising:

a second mask word in the guest virtual machine context, the second mask word to include a second flag to indicate whether the control flag is maintained in the shadow location;

wherein the execution control unit is further

to cause a write of the control flag by the guest virtual machine to be redirected to the shadow location if the control flag is not owned by the guest virtual machine and is maintained in the shadow location, and

to cause an exit to a virtual machine monitor if the control flag is not owned by the guest virtual machine and is not maintained in the shadow location.

11.   (Original)

The processor of claim 10, wherein the execution control unit is responsive to the second flag only if the first flag indicates that the control flag is not owned by the guest virtual machine.

12.   (Currently Amended)

A processor comprising:

a processor control register;

a control flag included in the processor control register;

means for detecting the writing of the control flag by a guest virtual machine;

means for determining whether the control flag is owned by the guest virtual machine;

means for writing the control flag to the processor control register if the control flag is owned by the guest virtual machine; and

means for writing the control flag to a shadow location <u>in a guest virtual machine context in a memory coupled to the processor</u> if the control flag is not owned by the guest virtual machine.

13.   (Original)

The processor of claim 12, wherein means for determining whether the control flag is owned by the guest virtual machine further comprises means for testing a first flag in a mask word.

14.   (Original)

The processor of claim 12, further comprising:

means for determining whether the control flag is maintained in the shadow location;

means for writing the control flag to the shadow location if the control flag is not owned by the guest virtual machine and is maintained in the shadow location; and

means for exiting to a virtual machine monitor if the control flag is not owned by the guest virtual machine and is not maintained in the shadow location.

15.   (Original)

The processor of claim 14, wherein means for determining whether the control flag is maintained in a shadow location is operative only if the control flag is not owned by the guest virtual machine.

16.   (Currently Amended)

The processor of claim 14, wherein means for determining whether the control flag is at or

maintained in a shadow location further comprises means for testing a ~~second~~ flag.

17.   (Currently Amended)

An article of manufacture comprising:

a machine-accessible medium including data that, when accessed by a processor, cause

the processor to perform operations comprising,

determining whether a control flag included in a processor control register

of the processor is owned by a guest virtual machine;

writing the control flag to a processor control register if the control flag is

owned by the guest virtual machine; and

writing the control flag to a shadow location in a guest virtual machine

context in a memory coupled to the processor if the control flag is not

owned by the guest virtual machine.

18.   (Original)

The article of manufacture of claim 17 wherein the machine-accessible medium further

includes data that cause the processor to perform operations comprising testing a first flag in

a mask word to determine whether the control flag is owned by the guest virtual machine.

19. (Original)

The article of manufacture of claim 17 wherein the machine-accessible medium further

includes data that cause the processor to perform operations comprising:

determining whether the control flag is maintained in the shadow location;

writing the control flag to the shadow location if the control flag is not owned by the

guest virtual machine and is maintained in the shadow location; and

exiting to a virtual machine monitor if the control flag is not owned by the guest virtual

machine and is not maintained in the shadow location.

20. (Original)

The article of manufacture of claim 19 wherein determining whether the control flag is

maintained in a shadow location is performed only if the control flag is not owned by the

guest virtual machine.

21. (Currently Amended)

The article of manufacture of claim 19 wherein the machine-accessible medium further

includes data that cause the processor to perform operations comprising testing a ~~second~~ flag

to determine whether the control flag is maintained in a shadow location.

22. (Original)

A system comprising:

a processor control register including a control flag;

a memory coupled to the processor, the memory selected from one of an SDRAM

memory and an RDRAM memory, the memory to maintain a guest virtual machine

context;

a pointer to the guest virtual machine context;

a first mask word in the guest virtual machine context, the first mask word to include a

first flag in to indicate whether the control flag is owned by a guest virtual machine

associated with the guest virtual machine context;

a shadow location in the guest virtual machine context;

an execution control unit to cause a write of the control flag by the guest virtual machine

to be redirected to the shadow location if the control flag is not owned by the guest

virtual machine.

23.   (Original)

The system of claim 22, further comprising:

a second mask word in the guest virtual machine context, the second mask word to

include a second flag in to indicate whether the control flag is maintained in the shadow

location;

wherein the execution control unit is further

to cause a write of the control flag by the guest virtual machine to be

redirected to the shadow location if the control flag is not owned by the

guest virtual machine and is maintained in the shadow location, and

to cause an exit to a virtual machine monitor if the control flag is not

owned by the guest virtual machine and is not maintained in the shadow

location.

24.   (Original)

The system of claim 23, wherein the execution control unit is responsive to the second flag

only if the first flag indicates that the control flag is not owned by the guest virtual machine.